Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,939,910 ('910). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Patented invention '910 discloses composition and tire tread containing the disclosed composition. In the claims of the patented invention, the definition of the softening oil is exactly

the same as the definition of the softening oil in the claims at hand even regarding the addition of asphaltene.

The only difference between the claims of patented invention and instant claims is the limitation that one of the rubbers is a liquid rubber.

Applicants attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438,164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to description of the rubber components in the disclosure of the patented invention. The definition of rubber in the examples is butadiene rubber or SBR extended with oil. One of the trade names listed is BUDENE 1255, a high cis-polybutadiene, which very similar to natural rubber has Tg of about -100°C, and is a liquid at room temperature encompassing viscosities of the present invention.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art, that while practicing invention of the instant claims, one would arrive at the invention disclosed and otherwise patented in '910.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 8, 9, 11, 12, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by IMAI (US 4,360,049).

The prior art of IMAI discloses composition for tire tread comprising mixture of rubbers, one of which is liquid rubber. The liquid rubber is either polybutadiene rubber or SBR having viscosity average of 2,000-150,000, which encompasses the claims of the present invention (col. 2 and examples). Oil is utilized in examples of IMAI in amount of 10 pbw and since it is not a mineral oil that is extracted, its DMSO content is bound to be zero.

The prior art of IMAI further teaches following about liquid rubber: If the viscosity of the liquid rubber is below 2,000, especially in SBR, the amount of rubber that will not be crosslinked increases and as a result the polymer migrates, properties such as heat generation and wear resistance are compromised. If the molecular weight is larger than 150,000 then heat generation under vulcanized state is high and scorch phenomenon occurs. It is therefore imperative that any liquid rubber utilized in tire tread have the molecular weight within that

range. The prior art of IMAI is therefore evidenciary reference, in light of which the applications of liquid rubbers is interpreted.

In view of the above disclosure, the prior art of IMAI anticipates claims rejected above.

5. Claims 1, 2, 4, 8, 11, 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by HASHIMOTO (EP 939,104) as provided by the applicants in view of evidence in the teachings of IMAI (US 4,360,049).

The prior art of HASHIMOTO clearly anticipates claims of the present invention especially in view of the fact that natural rubber is a white cloudy liquid. The prior art of IMAI is further relied on to provide a criticality of the molecular weight of the liquid rubber.

In the light of the above disclosure, the prior art of HASHIMOTO as evidenced by IMAI anticipates claims rejected above.

6. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by NAKAGAWA (US 6,939,910).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Patented invention '910 discloses composition and tire tread containing the disclosed composition. In the claims of the patented invention, the definition of the softening oil is exactly the same as the definition of the softening oil in the claims at hand even regarding the addition of asphaltene.

The only difference between the claims of patented invention and instant claims is the limitation that one of the rubbers is a liquid rubber.

The definition of rubber in the examples is butadiene rubber or SBR extended with oil. One of the trade names listed is BUDENE 1255, a high cis-polybutadiene, which very similar to natural rubber has Tg of about -100°C, and is a liquid at room temperature encompassing viscosities of the present invention.

In the light of the above disclosure, the prior art of NAKAGAWA anticipates claims rejected above.

7. Claims 1, 2, 4, 8, 11, 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by RUSSELL (GB 2,239,870) as provided by applicants in view of evidence in the teachings of IMAI (US 4,360,049).

See claims and examples on page 4 and evidence teaching of IMAI with respect to the molecular weight of the liquid polymer.

8. Claims 1-4, 8, 9, 11-13, 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by NAKAYAMA (US 4,840,988) in view of evidence in the teachings of IMAI (US 4,360,049).

See examples and claims in view of evidence provided in IMAI with respect to the criticality of the liquid polymers utilized therein.

9. Claims 1, 2, 4-11, 13-18 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by HENNING (US 6,977,276) in view of evidence in the teachings of IMAI (US 4,360,049).

See Table 1, col. 8-9 as well as Table in col. 4-5 for DMSO content, claims and evidence teaching of IMAI with respect to the criticality of the molecular weight of the liquid polymer. Hydrogenated oils are enabled as described following Table in col. 3 and are referred to as saturated or treated with hydrogen. Natural rubber in disclosure of HENNING is liquid.

10. Claims 1-6, 8, 9, 11-15, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by WEYDERT (US 7,193,004) in view of evidence in the teachings of IMAI (US 4,360,049).

See Table 1, col. 8-9 as well as Table in col. 3 for DMSO content, claims and evidence teaching of IMAI with respect to the criticality of the molecular weight of the liquid polymer. Hydrogenated oils are enabled as described following Table in col. 3 and are referred to as saturated or treated with hydrogen.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-4, 8, 9, 11-13, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over HASHIMOTO (EP 939,104) in view of IMAI (US 4,360,049).

The prior art of HASHIMOTO clearly anticipates claims of the present invention especially in view of the fact that natural rubber is a white cloudy liquid. See examples. The prior art of IMAI is further relied on to provide a criticality of the molecular weight of the liquid

rubber as well as the type of the molecular weight that can be utilized in the composition for tire tread, wherein the liquid rubber is polybutadiene or SBR.

Both disclosures of record teach composition with liquid rubber, wherein the composition is utilized in tire tread.

Selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.* 325 U.S. 327, 65 USPQ 297 (1945).

Therefore it would have been obvious to one having ordinary skill in the art to utilize L-BR liquid rubbers of IMAI, since they can be viewed as similar to polyisoprene or natural rubber and therefore functional equivalent. Resulting composition would provide tire tread with minimized heat build-up.

15. Claims 1-4, 8, 9, 11-13, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over RUSSELL (GB 2,239,870) in view of IMAI (US 4,360,049).

See claims and examples on page 4, where the liquid rubber is polyisoprene utilized with oil and asphaltene and The prior art of IMAI is further relied on to provide a criticality of the molecular weight of the liquid rubber as well as the type of the molecular weight that can be utilized in the composition for tire tread, wherein the liquid rubber is polybutadiene or SBR.

Both disclosures of record teach composition with liquid rubber, wherein the composition is utilized in tire tread.

Selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.* 325 U.S. 327, 65 USPQ 297 (1945).

Therefore it would have been obvious to one having ordinary skill in the art to utilize L-BR liquid rubbers of IMAI, since they can be viewed as similar to polyisoprene or natural rubber and therefore functional equivalent. Resulting composition would provide tire tread with minimized heat build-up.

16. Claim1-4, 8, 9, 11-13, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over NAKAYAMA (US 4,840,988) in view of IMAI (US 4,360,049).

See examples and claims. The prior art of IMAI is further relied on to provide a criticality of the molecular weight of the liquid rubber of polybutadiene or SBR that should be utilized in order to provide tire tread without excessive heat build-up.

Both disclosures of record teach composition with liquid rubber, wherein the composition is utilized in tire tread.

Selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.* 325 U.S. 327, 65 USPQ 297 (1945).

Therefore it would have been obvious to one having ordinary skill in the art to utilize L-BR and L-SBR of NAKAYAMA having the same molecular weight as that of IMAI and thereby

obtain the claimed invention. Resulting composition would provide tire tread with minimized heat build-up.

17. Claims 1-6, 8, 9, 11-15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over HENNING (US 6,977,276) in view of IMAI (US 4,360,049).

See Table 1, col. 8-9 as well as Table in col. 4-5 for DMSO content and claims. Hydrogenated oils are enabled as described following Table in col. 3 and are referred to as saturated or treated with hydrogen. Natural rubber in disclosure of HENNING is liquid.

The prior art of IMAI is further relied on to provide a criticality of the molecular weight of the liquid rubber of polybutadiene or SBR that should be utilized in order to provide tire tread without excessive heat build-up.

Both disclosures of record teach composition with liquid rubber, wherein the composition is utilized in tire tread.

Selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.* 325 U.S. 327, 65 USPQ 297 (1945).

Therefore it would have been obvious to one having ordinary skill in the art to utilize L-BR and L-SBR of IMAI in place of natural rubber of HENNING and thereby obtain the claimed invention. Resulting composition would provide tire tread with minimized heat build-up.

18. Claims 1-6, 8, 9, 11-15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WEYDERT (US 7,193,004) in view of IMAI (US 4,360,049).

See Table 1, col. 8-9 as well as Table in col. 3 for DMSO content and claims. Hydrogenated oils are enabled as described following Table in col. 3 and are referred to as saturated or treated with hydrogen.

The prior art of IMAI is further relied on to provide a criticality of the molecular weight of the liquid rubber of polybutadiene or SBR that should be utilized in order to provide tire tread without excessive heat build-up.

Both disclosures of record teach composition with liquid rubber, wherein the composition is utilized in tire tread.

Selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.* 325 U.S. 327, 65 USPQ 297 (1945).

Therefore it would have been obvious to one having ordinary skill in the art to utilize L-BR and L-SBR having molecular weight as disclosed in IMAI in the teachings of WEYDERT and thereby obtain the claimed invention. Resulting composition would provide tire tread with minimized heat build-up.

19. Claims 7, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over HENNING (US 6,977,276) in view of IMAI (US 4,360,049) as applied to claims 1-6, 8 above, and further in view of HASHIMOTO (EP 939,104) or RUSSELL (GB 2,239,870).

Discussion of the teachings of HENNING, IMAI and HASHIMOTO or RUSSELL from paragraphs above is incorporated here by reference.

Asphaltines, when utilized as additives produce rubber that can be satisfactorily stretched, does not discolor and resulting tire tread can have efficien high-loss property as a result of asphalt penetration.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art to add asphaltine to the rubber composition in combination with liquid rubber and thereby obtain the claimed invention. Such modification would provide tire tread having efficient high-loss property.

20. Claims 7, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WEYDERT (US 7,193,004) in view of IMAI (US 4,360,049) as applied to claims 1-6, 8 above, and further in view of HASHIMOTO (EP 939,104) or RUSSELL (GB 2,239,870).

Discussion of the teachings of WEYDERT, IMAI and HASHIMOTO or RUSSELL from paragraphs above is incorporated here by reference.

Asphaltines, when utilized as additives produce rubber that can be satisfactorily stretched, does not discolor and resulting tire tread can have efficien high-loss property as a result of asphalt penetration.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art to add asphaltine to the rubber composition in combination with liquid rubber and thereby obtain the claimed invention. Such modification would provide tire tread having efficient high-loss property.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 8:30 AM-2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Katarzyna Wyrozebski/
Primary Examiner, Art Unit 1796

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